



U.S. Fish & Wildlife Service

Division of Fisheries and Aquatic Resource Conservation

The Aquatic Animal Drug Approval Partnership

New Animal Drug Approvals for Aquatic Species

Public and private aquaculture in the United States has struggled for many years because of a severe shortage of U.S. Food and Drug Administration (FDA) approved drugs for use in aquatic species.

Currently, only a handful of drugs are approved for use in aquatic species, and use of these compounds is restricted to only certain species and life stages. This situation has jeopardized the health and fitness of aquatic species held in captivity, many of which are key to restoration, recovery, and management activities by the Service and its many partners. Improved health and fitness of released animals serves not only to conserve valuable aquatic resources, but also to enhance overall ecosystem diversity and fitness.



The Service's Aquatic Animal Drug Approval Partnership (AADAP) program was established within the Service's National Fish Hatchery System to ensure continued progress towards obtaining FDA-approved (and EPA-compliant) new

animal drug approvals for use in Federal, State, Tribal and private aquaculture programs throughout the United States.



The successful control of treatable diseases in all animals (including humans) necessitates that health-care professionals have more than one drug available for any given disease, as reliance on a single drug may quickly lead to that drug becoming ineffective. Private and public aquaculturists in the U.S. now raise more than 100 species of aquatic animals. Unfortunately, FDA-approved drugs do not exist to legally treat the vast majority of these species. AADAP provides assistance to all Federal, State, Tribal and private aquatic animal culturists to meet their animal disease management needs.

AADAP works hand-in-hand with the Association of Fish and Wildlife Agencies' Drug Approval Working Group, and focuses efforts on a prioritized list of drugs for FDA-approval. Once approved, these drugs will be available to all public and private sector aquaculturists.

AADAP is a broad, partner-based national program. More specifically, AADAP helps to lead a coordinated effort to generate data, analyze results, compile final study reports, disseminate information

and data, and manage all other aspects of requisite data submissions to FDA in support of new animal drug approvals for aquatic species. AADAP also helps to coordinate drug approval activities to ensure hatchery compliance with EPA's NPDES discharge regulations as they relate to drugs and chemicals.

AADAP builds on long-standing partnerships first established between the Service's National INAD Office in Bozeman, Montana, and which currently include over 140 Federal, State,



Tribal and private agencies or organizations. AADAP administers the Service's highly successful National INAD Program, whereby both Service and non-Service participant facilities are allowed to use needed drugs under limited experimental conditions. AADAP's research program continues to generate important FDA-required data to support new animal drug approvals in cooperation with its partners.

AADAP, with strong support and encouragement of our partners, will continue to expand the scope of ongoing work to meet the needs of aquatic resource management. AADAP will continue to provide strong Service leadership towards a concerted national effort to assemble the complex data packages required for FDA-approval of new aquatic animal drugs.



Not only do AADAP activities fully support Department of the Interior (DOI) strategies, but they also reflect good common sense and public responsibility:

- ◆ Accountability – all AADAP activities and generated research are archived in the public domain and available to all potential user-groups; and
- ◆ Modernization – AADAP uses the latest technologies and sound science to achieve goals and objectives.

Global climate change presents a serious potential threat to the health and well being of all aquatic species. AADAP was developed to be proactive and capable of addressing emerging issues related to maintaining the health and fitness of cultured and wild fish populations. The prevalence and severity of animal diseases is strongly correlated with environmental conditions (i.e., potential stressors), and is ever-changing. In cold-blooded aquatic species, water temperature is a critical factor in both pathogen abundance and virulence, as well as host susceptibility. AADAP is uniquely poised to respond to such emerging issues should they arise.



- ◆ Conservation – healthier fish are released to the environment and available to the public;
- ◆ Cooperation – partnership activities with other Federal, State, Tribal, and private entities;
- ◆ Consultation – AADAP was developed jointly with the Association of Fish and Wildlife Agencies and other Federal, State, and Tribal partners;
- ◆ Communication – all activities are coordinated and focused on partner-based objectives, and are disseminated through AADAP's Newsletter and web-page (<http://www.fws.gov/fisheries/aadap/>);
- ◆ Customer value – all new drug approvals obtained via AADAP's efforts will be available to use by all fish culturists, not just those working at Service facilities;
- ◆ Integration – AADAP integrates resources and expertise from other Federal, State, Tribal, and private organizations to accomplish common goals;

The Service shares stewardship responsibilities for the care and preservation of our Nation's aquatic heritage with our State, Tribal and other partners. As our Nation grows, so do both direct and indirect pressures on those valuable resources. As a consequence, we must work ever more diligently and effectively with our partners to maintain and enhance our aquatic ecosystems for the continued benefit of the American public.

Captive propagation and the carefully managed release and assessment of aquatic species will continue to be an important tool in



our work. To ensure the success of such releases, and to maintain the strength and fitness of these populations and that of the ecosystems in which they interact, it is imperative that animals in our care remain as healthy as possible at all times.



AADAP, in its role of helping to obtaining new approved drugs and chemicals for aquatic species, is integral to the Service's successful stewardship of our natural resources for the enjoyment of all Americans.

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